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GENERAL

ILLUSTRATIONS  
OF THE  
**ZOOLOGY**  
OF THE  
ROYAL INDIAN MARINE SURVEY SHIP  
**INVESTIGATOR,**  
UNDER THE COMMAND OF  
COMMANDER T. H. HEMING, R.N.

FISHES.—Part V, Plates XVIII—XXIV.

CRUSTACEA.—Part VI, Plates XXXIII—XXXV.

MOLLUSCA.—Part II, Plates VII—VIII.

UNDER THE DIRECTION OF

A. ALCOCK, M. B., C.M.Z.S, SUPERINTENDENT OF THE INDIAN MUSEUM, FORMERLY  
SURGEON-NATURALIST TO THE INDIAN MARINE SURVEY  
AND OF

A. R. S. ANDERSON, B.A., M.B., SURGEON-NATURALIST TO THE INDIAN MARINE SURVEY.



Published under the Authority of Captain W. S. Goodridge, R.N.,  
Director of the Royal Indian Marine.

CALCUTTA:

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1898.

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Alcock, Alfred.

Zoology of the Royal Indian Marine Survey Ship Investigator



## EXPLANATION OF PLATE.

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## FISHES.

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### PLATE XVIII.

**Fig. 1.**—*Bathyseriola cyanea*, Alcock, Annals and Magazine of Natural History, (6), VI, 1890, p. 202, and (6), VIII, 1891, p. 23.

**Fig. 2.**—*Brephostoma carpenteri*, Alcock, Annals and Magazine of Natural History, (6), IV, 1889, p. 383, and (6), VI, 1890, p. 201.

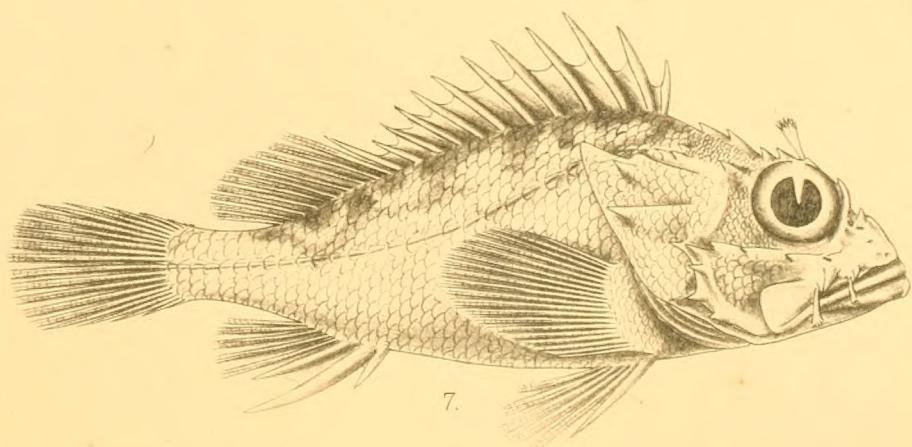
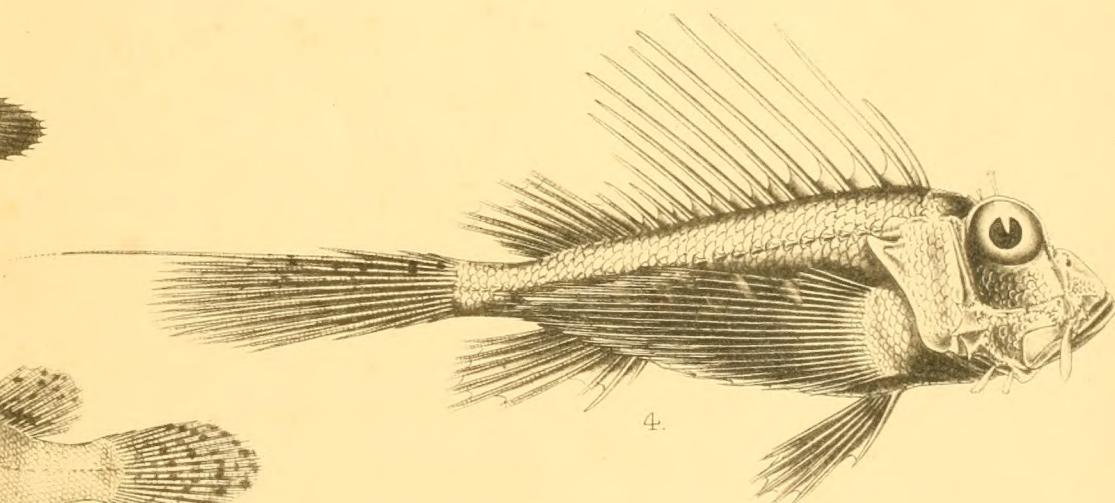
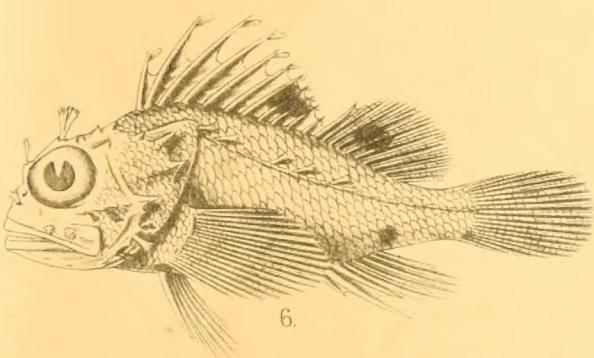
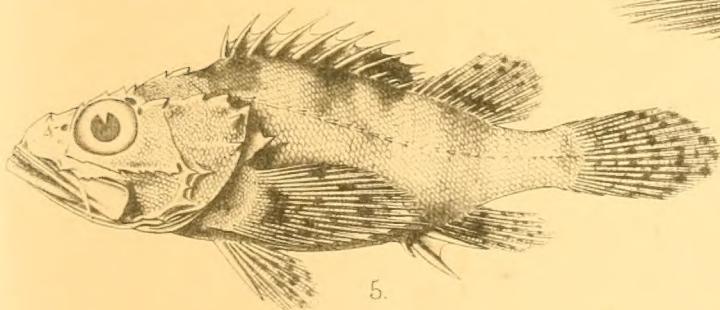
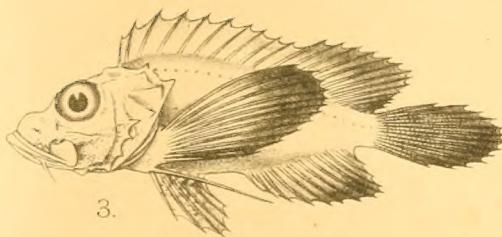
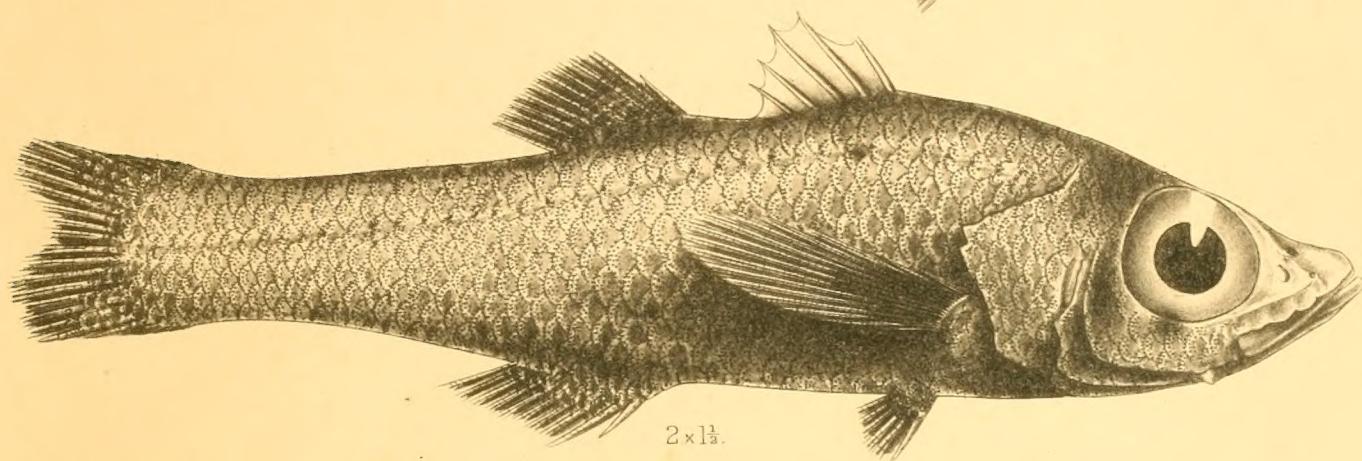
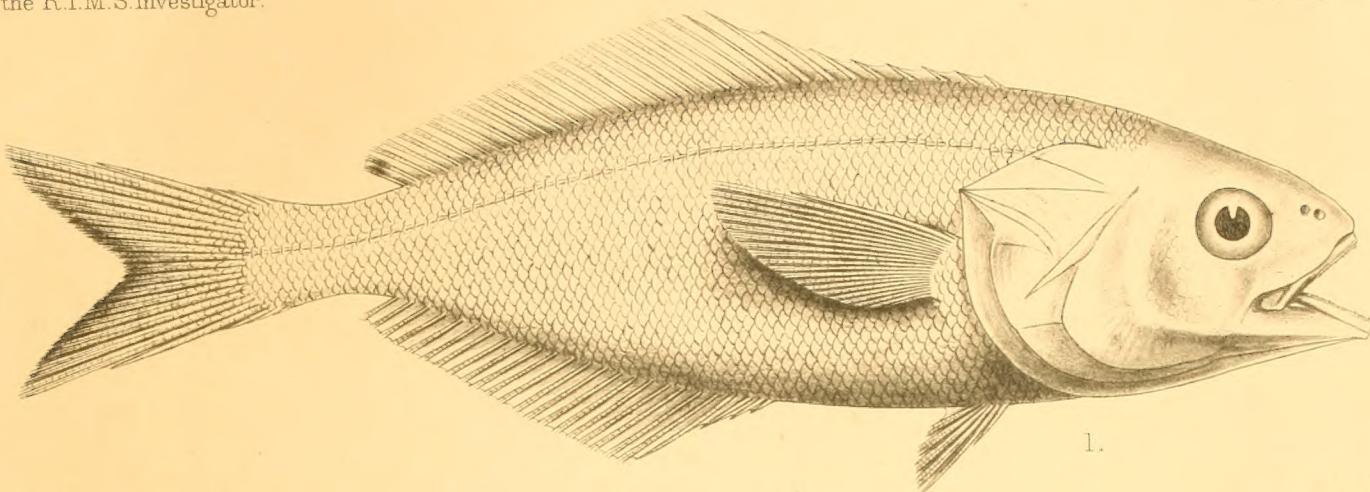
**Fig. 3.**—*Minous inermis*, Alcock, Journal, Asiatic Society of Bengal, Vol. LVIII, pt. 2, 1889, p. 299. Annals and Magazine of Natural History, (6), X, 1892, p. 207. Journal, Asiatic Society of Bengal, Vol. LXIII, pt. 2, 1894, p. 116.

**Fig. 4.**—*Pterois macrura*, Alcock, Journal, Asiatic Society of Bengal, Vol. LXV, pt. 2, 1896, p. 303.

**Fig. 5.**—*Sebastes muciparus*, Alcock, Journal, Asiatic Society of Bengal, Vol. LVIII, pt. 2, 1889, p. 298.

**Fig. 6.**—*Scorpaena erostris*, Alcock, Journal, Asiatic Society of Bengal, Vol. LXV, pt. 2, 1896, p. 302.

**Fig. 7.**—*Scorpaena bucephalus*, Alcock, Journal, Asiatic Society of Bengal, Vol. LXV, pt. 2, 1896, p. 302.



1. *Bathyseriola cyanea*. 2. *Brephostoma carpenteri*. 3. *Minous inermis*. 4. *Pterois macrura*.  
5. *Sebastes muciparus*. 6. *Scorpæna erostris*. 7. *Scorpaena bucephalus*.





## EXPLANATION OF PLATE.

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### FISHES.

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#### PLATE XIX.

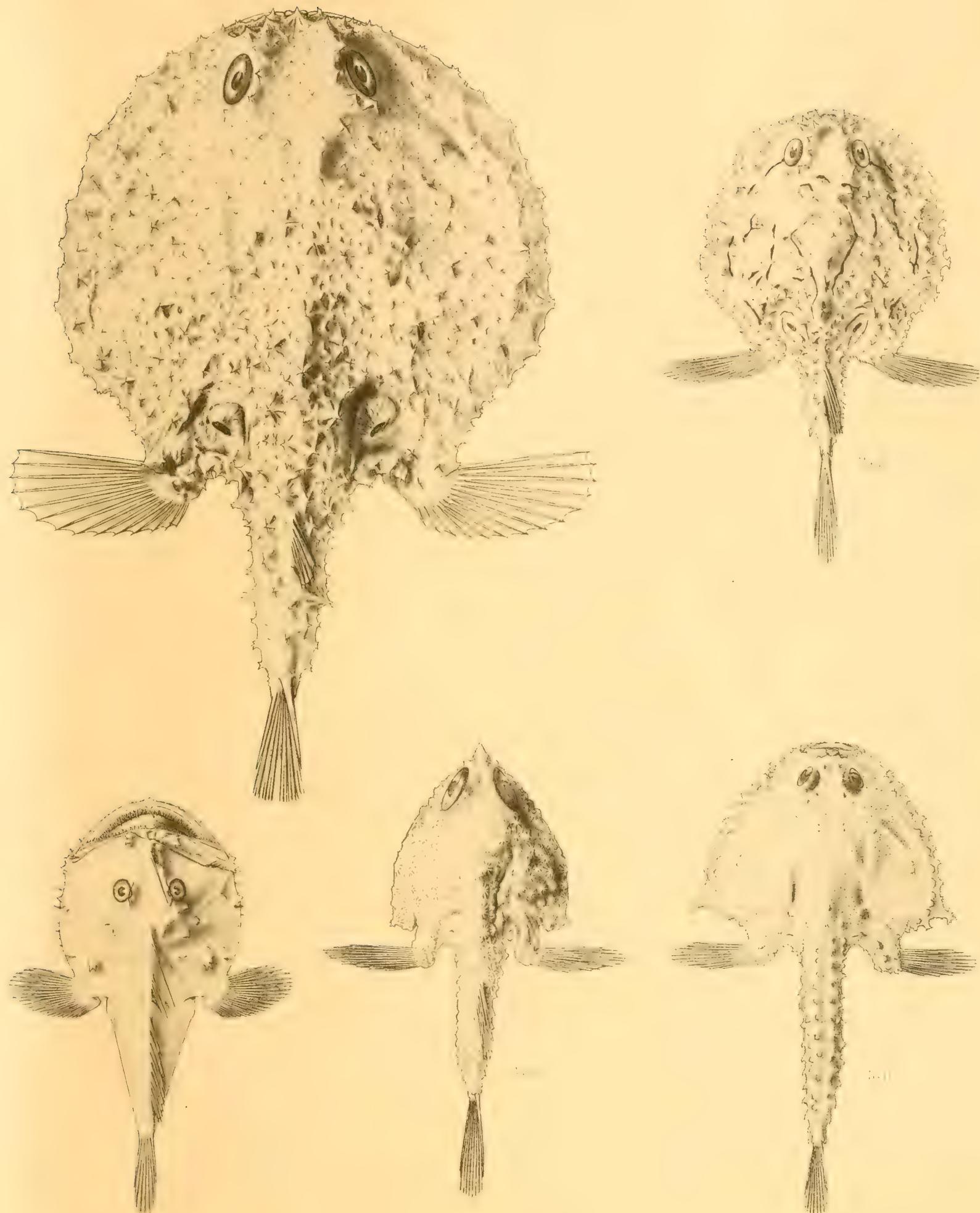
**Fig. 1.**—*Halieutæa coccinea*, Alcock, Annals and Magazine of Natural History, (6), IV, 1889, p. 382. Journal, Asiatic Society of Bengal, Vol. LXIII, pt. 2, 1894, p. 120.

**Fig. 2.**—*Halieutæa nigra*, Alcock, Annals and Magazine of Natural History, (6), VIII, 1891, p. 24. Journal, Asiatic Society of Bengal, Vol. LXIII, pt. 2, 1894, p. 120.

**Fig. 3.**—*Lophius indicus*, Alcock, Journal, Asiatic Society of Bengal, Vol. LVIII, pt. 2, 1889, p. 302.

**Fig. 4.**—*Malthopsis lutea*, Alcock, Annals and Magazine of Natural History, (6), VIII, 1891, p. 26.

**Fig. 5.**—*Halicmetus ruber*, Alcock, Annals and Magazine of Natural History (6), VIII, 1891, p. 27.



1. *Halieutaea coccinea*. 2. *Halieutaea nigra*. 3. *Lophius indicus*. 4. *Malthopsis lutea*. 5. *Halicmetus ruber*.





## EXPLANATION OF PLATE.

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### FISHES.

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#### PLATE XX.

**Fig. 1.**—*Dibranchus micropus*, Alcock, Annals and Magazine of Natural History, (6) VIII, 1891, p. 25; and (6) X, 1892, p. 348.

**Fig. 2.**—*Dibranchus nasutus*, Alcock, Annals and Magazine of Natural History, (6) VIII, 1891, p. 24.

**Fig. 3.**—*Gobius cometes*, Alcock, Annals and Magazine of Natural History, (6) VI, 1890, p. 208.

**Fig. 4.**—*Callionymus carebares*, Alcock, Annals and Magazine of Natural History, (6) VI, 1890, p. 209.

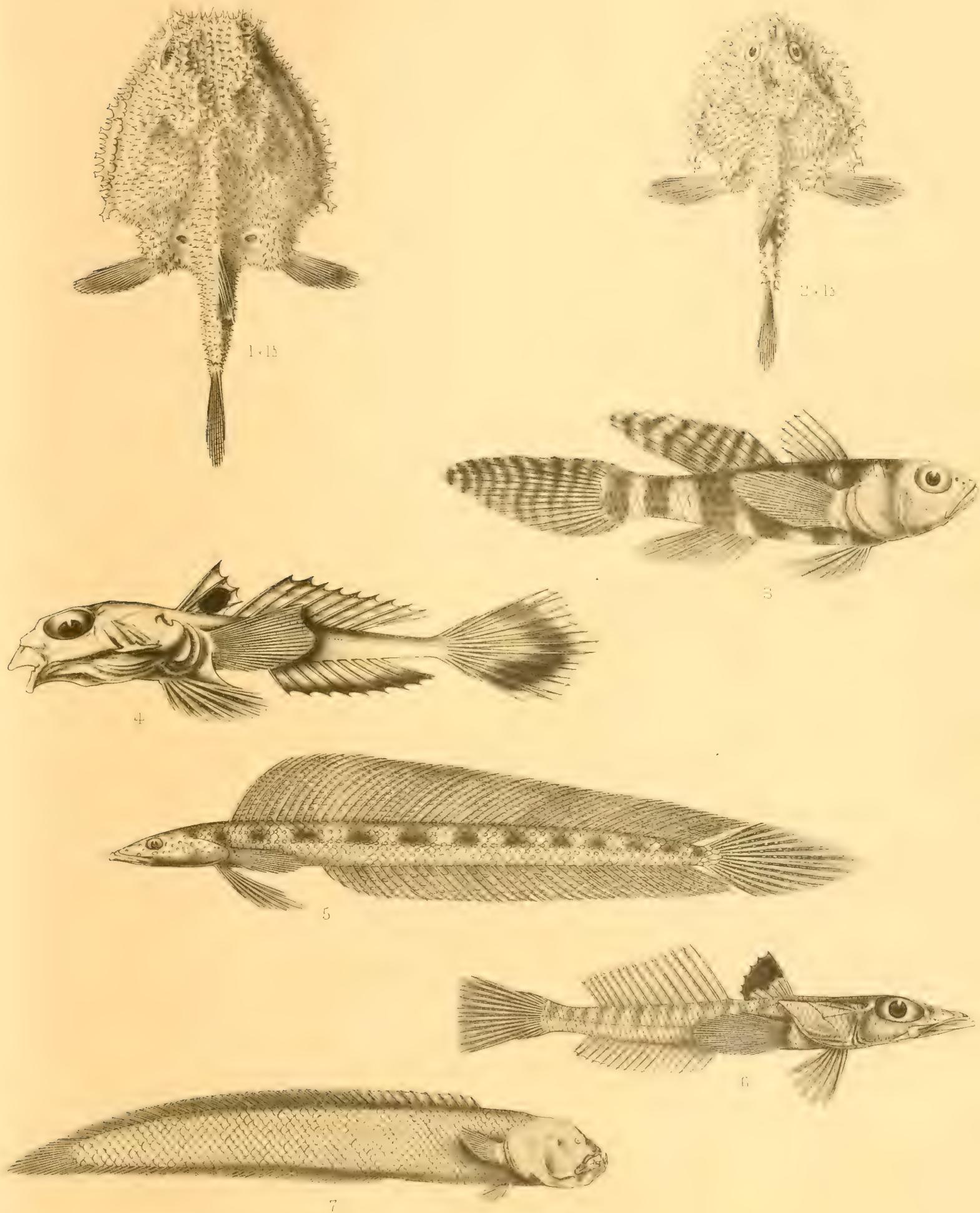
**Fig. 5.**—*Tæniolabrus cyclographus*, Alcock, Annals and Magazine of Natural History, (6) VI, 1890, p. 430.

**Fig. 6.\***—*Bembrops gobiooides* (Goode), Proc. U. S. Nat. Mus., III, 1880, p. 347: Goode and Bean, Oceanic Ichthyology, p. 290. *Vide* Alcock, Annals and Magazine of Natural History, (7) II, pp. 141, 142.

**Fig. 7.**—*Amblyopus arctocephalus*, Alcock, Annals and Magazine of Natural History, (6) VI, 1890, p. 432.

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\* *Hypsicometes gobiooides* Goode, = *Bembrops platyrhynchus* Alcock.



1. *Dibranchus micropus*. 2. *Dibranchus nasutus*. 3. *Gobius cometes* 4. *Callionymus caninus*  
5. *Taeniolabrus cyclograptus*. 6. *Bembrops platyrhynchus*. 7. *Amblyopus arctocephalus*





## EXPLANATION OF PLATE.

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### FISHES.

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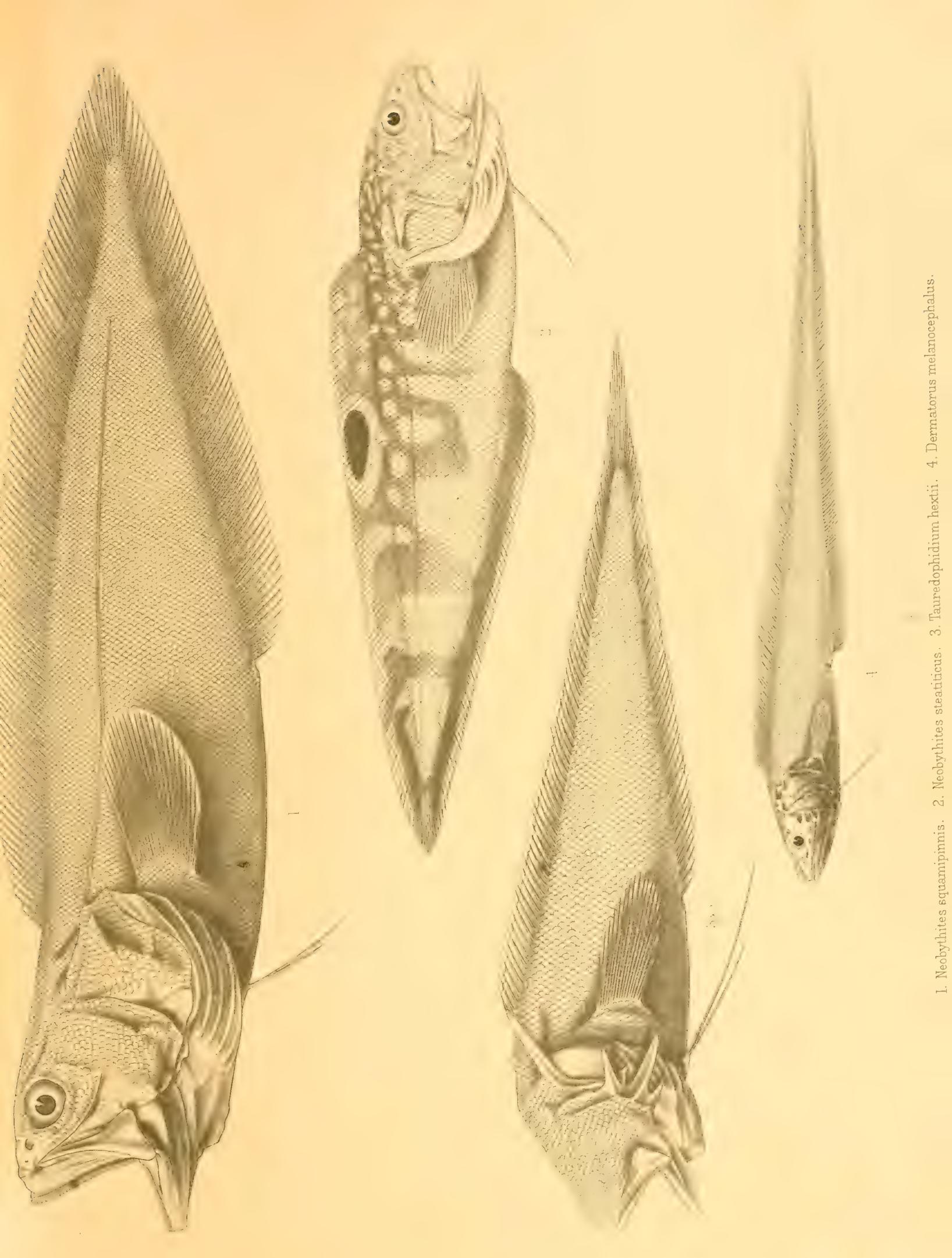
#### PLATE XXI.

**Fig. 1.**—*Neobythites squamipinnis*, Alcock, Annals and Magazine of Natural History, (6) IV, 1889, p. 386: Journal, Asiatic Society of Bengal, Vol. LXIII, pt. 2, 1894, p. 123.

**Fig. 2.**—*Neobythites steatiticus*, Alcock, Journal, Asiatic Society of Bengal, Vol. LXII, pt. 2, 1893, p. 181.

**Fig. 3.**—*Tauredophidium hextii*, Alcock, Annals and Magazine of Natural History, (6) VI, 1890, p. 213.

**Fig. 4.**—*Dermatorus melanocephalus*, Alcock, Annals and Magazine of Natural History, (6) VIII, 1891, p. 32.



1. *Neobythites squamipinnis*. 2. *Neobythites steatiticus*. 3. *Taureodophidium hextii*. 4. *Dermatorus melanocephalus*.





## EXPLANATION OF PLATE.

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### FISHES.

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#### PLATE XXII.

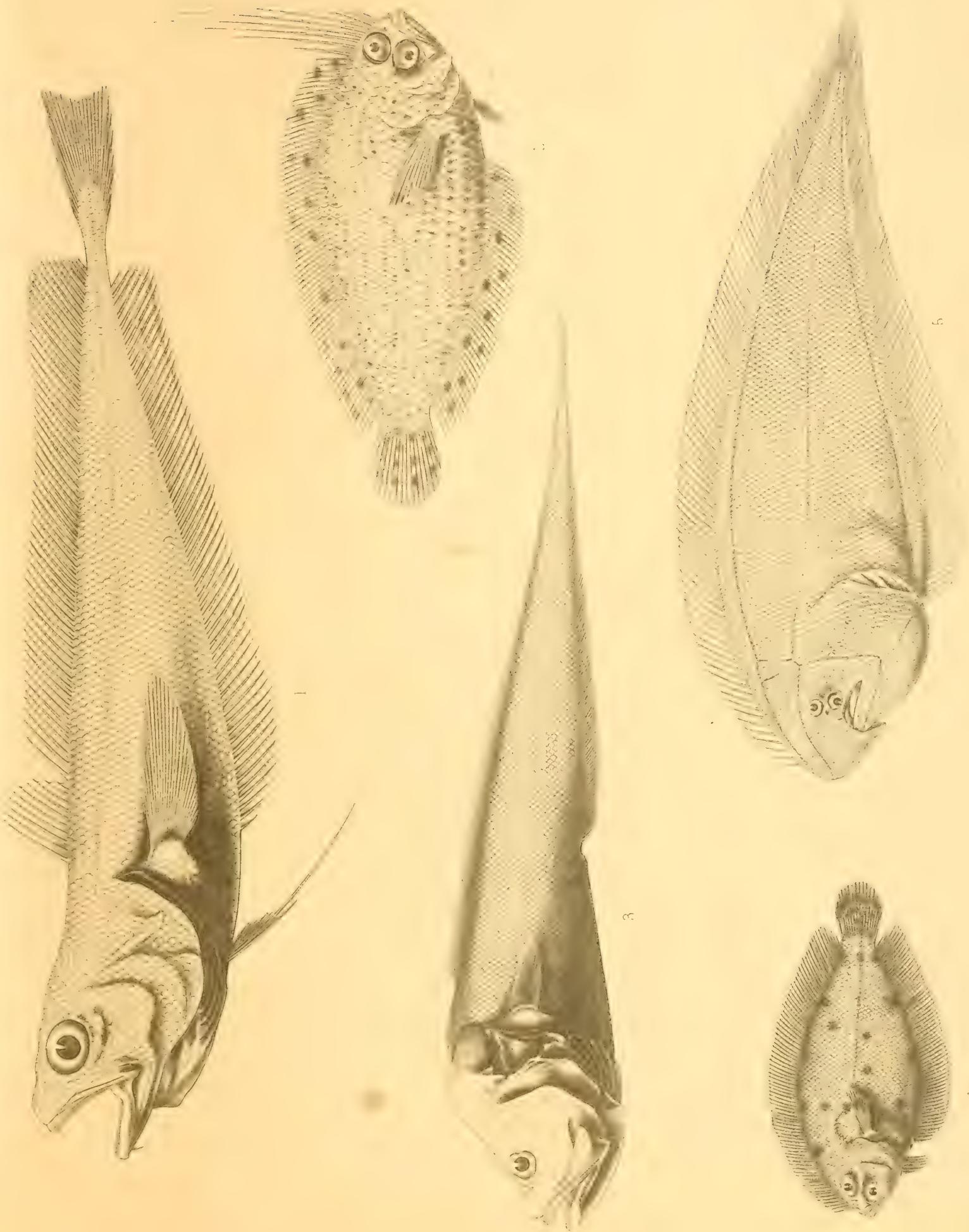
**Fig. 1.**—*Physiculus argyropastus*, Alcock, Journal, Asiatic Society of Bengal, Vol. LXII, pt. 2, 1893, p. 180, and Vol. LXIII, pt. 2, 1894, p. 121.

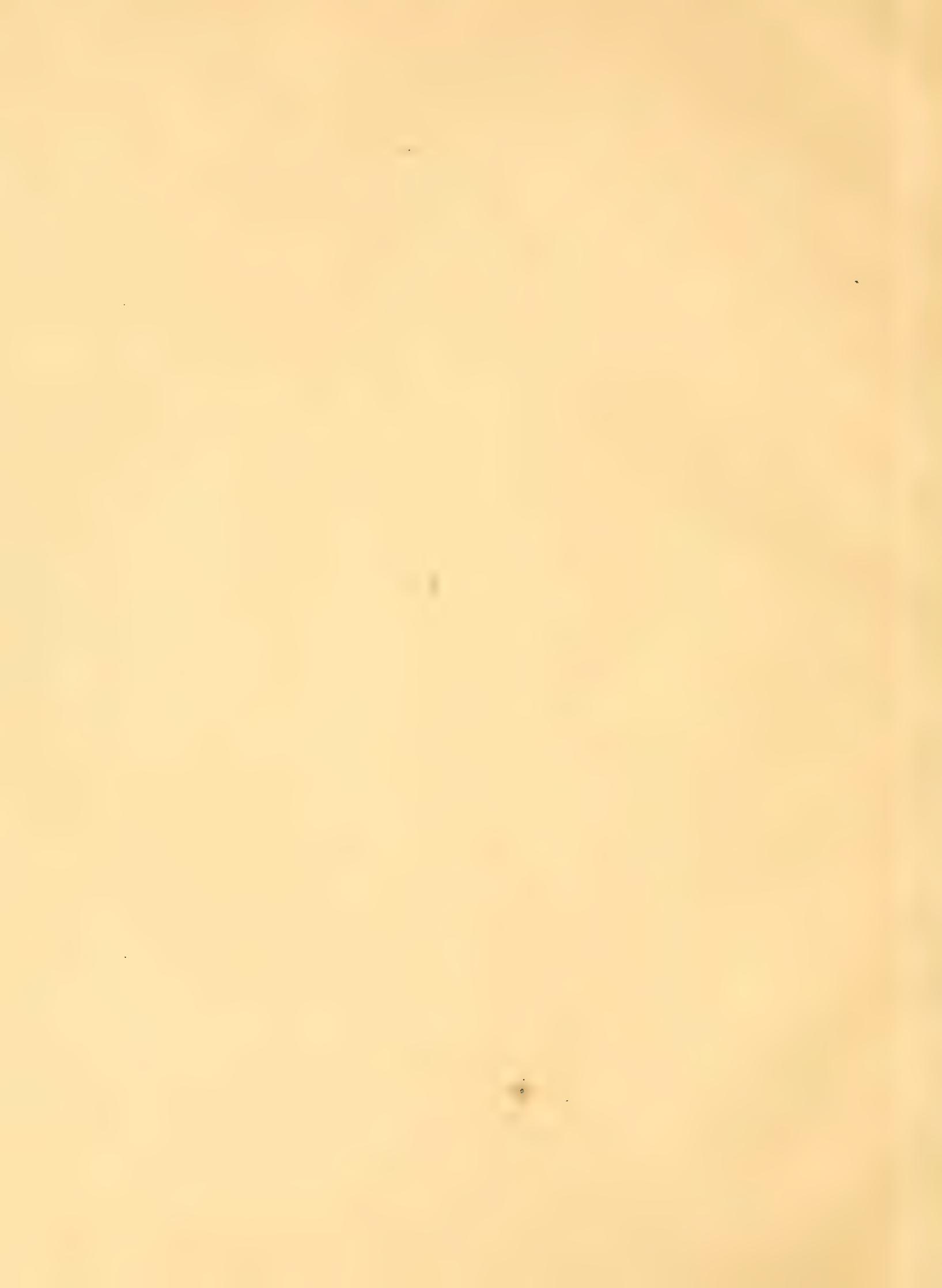
**Fig. 2.**—*Brachypleura xanthosticta*, Alcock, Journal, Asiatic Society of Bengal, Vol. LVIII, pt. 2, 1889, p. 281.

**Fig. 3.**—*Haplithocara simum*, Alcock, Annals and Magazine of Natural History, (6) X, 1892, p. 349.

**Fig. 4.**—*Arnoglossus brevirictis*, Alcock, Annals and Magazine of Natural History, (6) VI, 1890, p. 433.

**Fig. 5.**—*Cynoglossus carpenteri*, Alcock, Journal, Asiatic Society of Bengal, Vol. LVIII, pt. 2, 1889, p. 287: Annals and Magazine of Natural History, (6) VI, 1890, p. 217.







## EXPLANATION OF PLATE.

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### FISHES.

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#### PLATE XXIII.

**Fig. 1.**—*Scianectes macrophthalmus*, Alcock, Annals and Magazine of Natural History, (6) VI, 1890, p. 216.

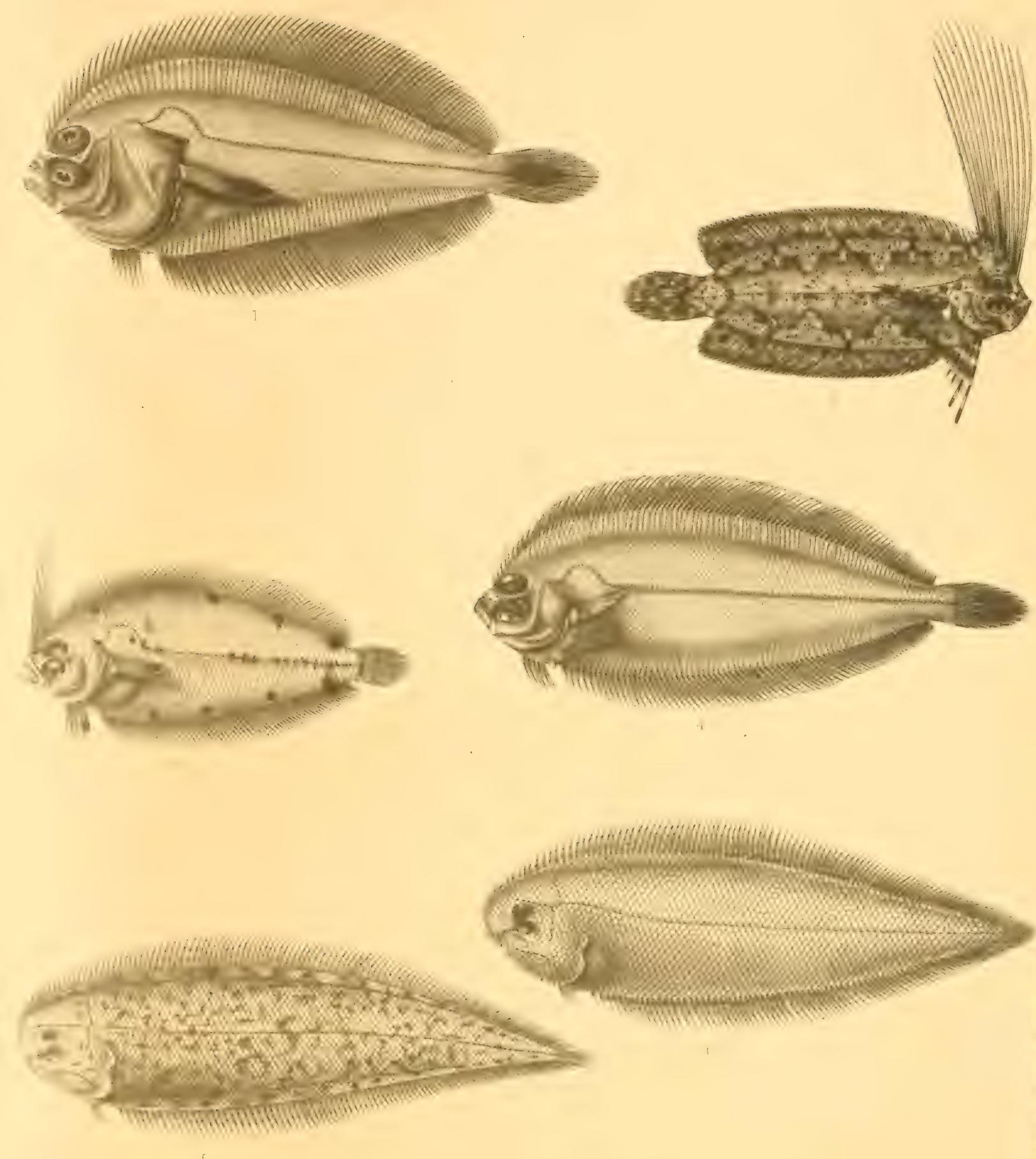
**Fig. 2.**—*Samaris cristatus*, Gray, Zoological Miscellany, p. 4 : Günther, Cat. Fishes, Brit. Mus., IV, 420, Alcock, Journal, Asiatic Society of Bengal, Vol. LVIII, pt. 2, 1889, p. 291.

**Fig. 3.**—*Arnoglossus macrolophus*, Alcock, Journal, Asiatic Society of Bengal, Vol. LVIII, pt. 2, 1889, p. 280 : Annals and Magazine of Natural History, (6) VI, 1890, p. 433.

**Fig. 4.**—*Læops giüntheri*, Alcock, Annals and Magazine of Natural History, (6) VI, 1890, p. 438.

**Fig. 5.**—*Cynoglossus versicolor*, Alcock, Annals and Magazine of Natural History, (6) VI, 1890, p. 442.

**Fig. 6.**—*Cynoglossus præcisus*, Alcock, Annals and Magazine of Natural History, (6) VI, 1890, p. 442.



1. *Scianectes macrophthalmus*    2. *Samaris cristatus*    3. *Arnoglossus macrolophus*  
4. *Laeops guentheri.*    5. *Cynoglossus versicolor*    6. *Cynoglossus praecisus*

S. C. M. & A. C. Chowdhury, del  
Photo-etching Survey of India Offices, Calcutta, July, 1898





## EXPLANATION OF PLATE.

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### FISHES.

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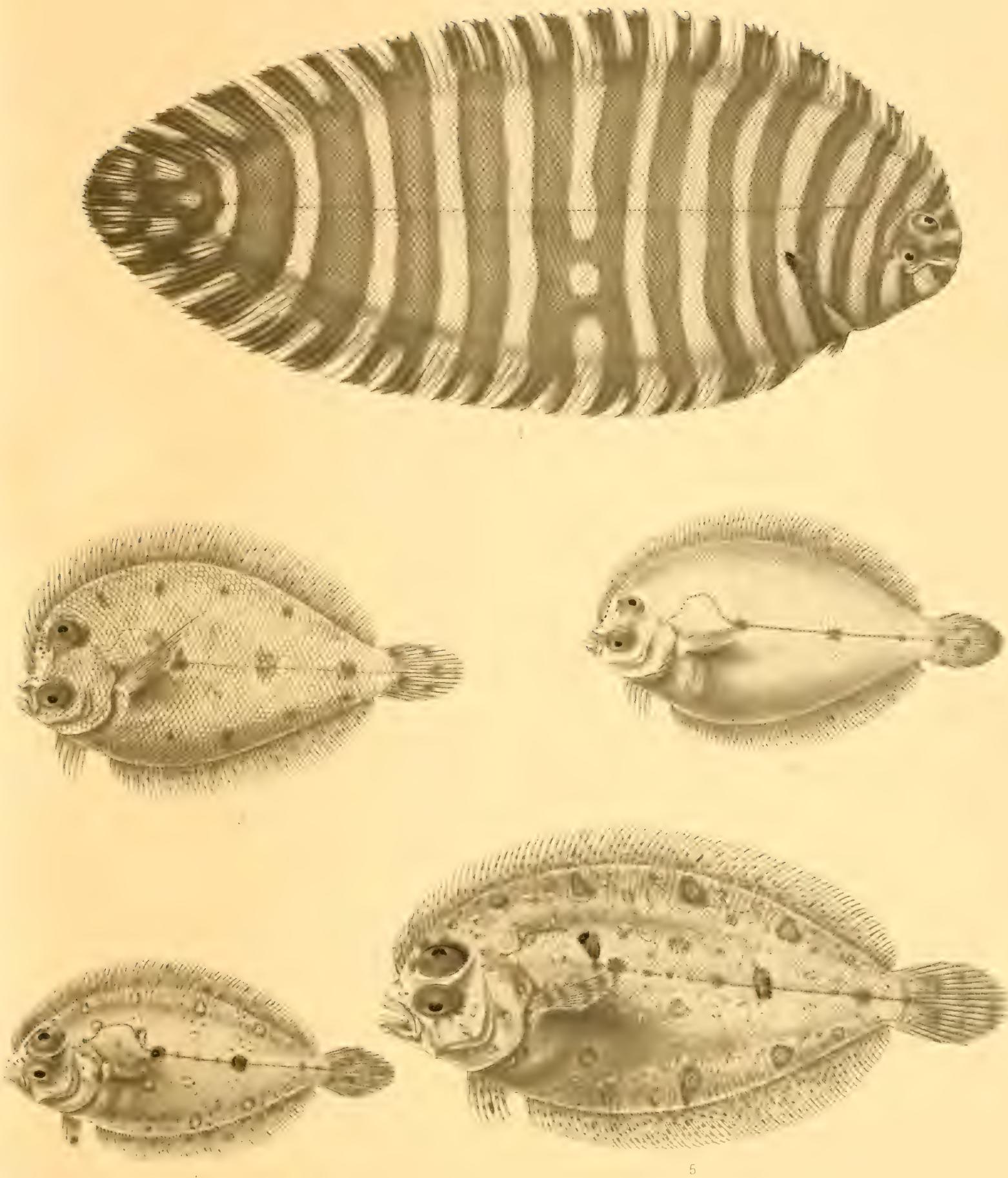
#### PLATE XXIV.

**Fig. 1.**—*Synaptura altipinnis*, Alcock, Annals and Magazine of Natural History, (6) VI, 1890, p. 441.

**Fig. 2.**—*Rhomboidichthys valderostratus*, Alcock, Annals and Magazine of Natural History, (6) VI, 1890, p. 435.

**Fig. 3.**—*Rhomboidichthys azureus*, Alcock, Journal, Asiatic Society of Bengal, Vol. LVIII, pt. 2, 1889, p. 283: Annals and Magazine of Natural History, (6) VI, 1890, p. 435.

**Figs. 4, 5.**—*Rhomboidichthys polylepis*, Alcock, Annals and Magazine of Natural History, (6) VI, 1890, p. 434. (Fig. 4, young, fig. 5, adult female.)



1. *Synaptura altipinnis*. 2. *Rhomboidichthys valderostratus*. 3. *Rhomboidichthys azureus*.  
4. *Arnoglossus polylepis*. 5. *Rhomboidichthys polylepis*





## EXPLANATION OF PLATE.

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### CRUSTACEA.

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#### PLATE XXXIII.

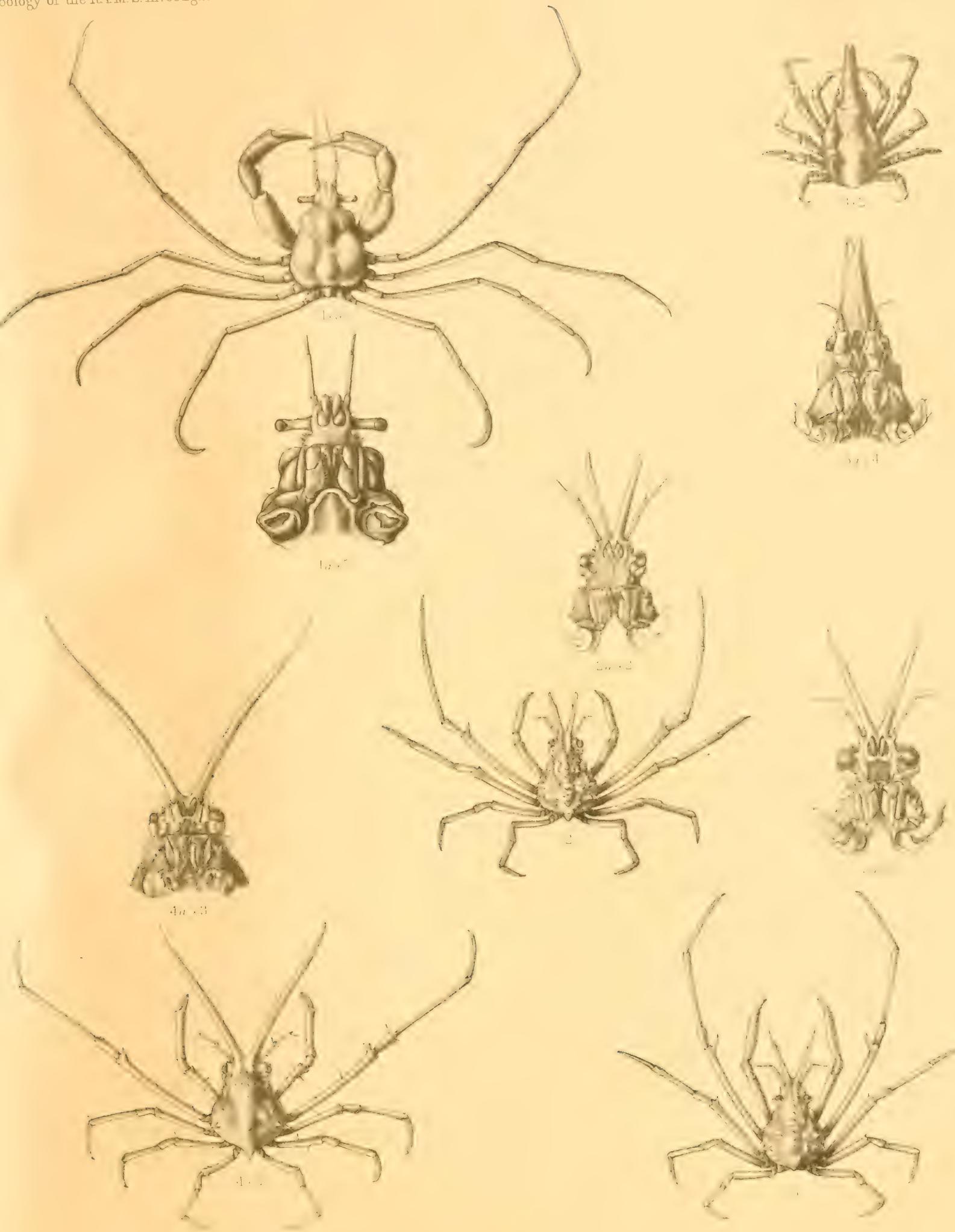
**Figs. 1, 1a.**—*Achaeus lacertosus*, Stimpson, Proc., Academy Natural Science, Philad. 1857, p. 218. [Vide Alcock, Journal, Asiatic Society of Bengal, Vol. LXIV, pt. 2, 1895, p. 172, *Carcinological Fauna of India*.]

**Figs. 2, 2a.**—*Naxia cerastes*, Ortmann, in Semon's *Forschungsr. Austral. u. Malay. Arch., Crust.* (Jena. Denk. Bd., VIII) p. 43. [Vide Alcock, *Carcinol. Faun. Ind. loc. cit.*, p. 220.]

**Figs. 3, 3a.**—*Xenocarcinus tuberculatus*, White, Proc. Zool. Soc. 1847, p. 119. [Vide Alcock, *Carcinol. Faun. Ind. loc. cit.*, p. 192.]

**Figs. 4, 4a.**—*Hyastenus tenuicornis*, Pocock, Annals and Magazine of Natural History, (6) V, 1890, p. 76. [Vide Alcock, *Carcinol. Faun. Ind. loc. cit.*, p. 215.]

**Figs. 5, 5a.**—*Naxia taurus*, Pocock, Annals and Magazine of Natural History, (6) V, 1890, p. 77. [Vide Alcock, *Carcinol. Faun. Ind. loc. cit.*, p. 219.]

1, *Achaeus lacertosus*, St. ♂. 2, *Naxia cerastes*, Ortm. ♂. 3, *Xenocarcinus tuberculatus*, White. ♀.4, *Hyastenus tenuicornis*, Poc. ♂. 5, *Naxia taurus*, Poc. ♂.





## EXPLANATION OF PLATE.

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### CRUSTACEA.

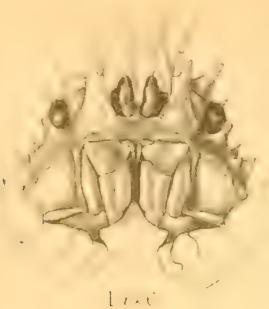
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#### PLATE XXXIV.

**Figs. 1, 1a ♂, 2, 2a ♀.**—*Hoplophrys oatesii*, Henderson, Trans. Linn. Soc., Zool., (2) V, 1893, p. 347. [Vide Alcock, Carcinol. Faun. Ind., loc. cit., p. 233.]

**Figs. 3, 3a.**—*Maia spinigera*, DeHaan, Fauna Japonica Crust., p. 93. [Vide Alcock, Carcinol. Faun. Ind., loc. cit., p. 239.]

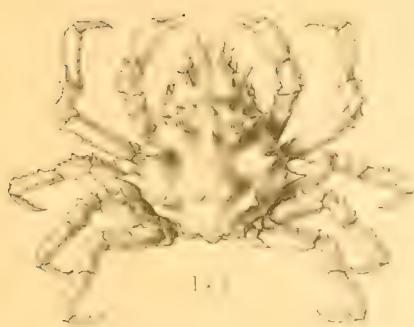
**Figs. 4, 4a, 4b.**—*Chlorinoides longispinus* (DeHaan), Fauna Japonica, Crust., p. 94. [Vide Alcock, Carcinol. Faun. Ind., loc. cit., p. 242.]



1. ♂



2. ♀



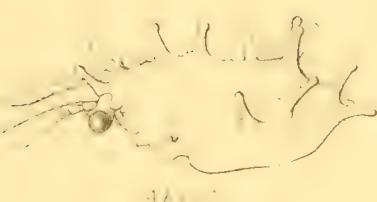
1. ♀



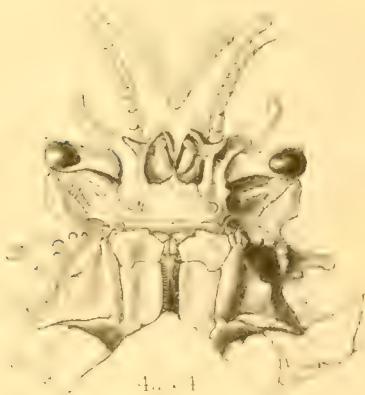
3. ♂



1. ♀



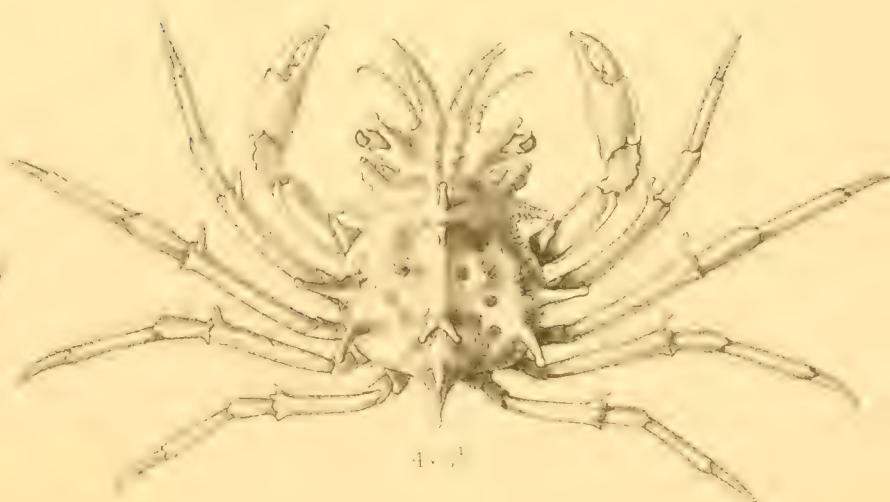
2. ♂



3. ♀



1. ♂



3. ♂

1. *Hoplophrys oatesii*, Hendrsn. ♂    2. *Hoplophrys oatesii*, Hendrsn. ♀  
3. *Mata spinigera*, (De H.).    4. *Chlorinoides longispinus*, (De H.). ♂





## EXPLANATION OF PLATE.

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### CRUSTACEA.

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#### PLATE XXXV.

**Figs. 1, 1a.**—*Schizophrys aspera*, Milne Edwards, Hist. Nat. Crust. I, 320. [Vide Alcock, Carcinol. Faun. Ind., loc. cit., p. 243.]

**Figs. 2, 2a.**—*Schizophrys dama* (Herbst), Krabben und Krebse, III, iv, p. 5. [Vide Alcock, Carcinol. Faun. Ind., loc. cit., p. 245.]

**Figs. 3, 3a.**—*Micipphe margaritifera*, Henderson, Trans. Linn. Soc., Zool., (2) V, 1893, p. 348. [Vide Alcock, Carcinol. Faun. Ind., loc. cit., p. 253.]

**Figs. 4, 4a.**—*Micipphe margaritifera*, var. *parca*, Alcock, Carcinol. Faun. Ind., loc. cit., p. 253.



1. *Schizophrys aspera*, Edw. ♂. 2. *Schizophrys dama*, Herbst. ♂. 3. *Micippe margaritifera*, Hend. ♂.  
4. *Micippe margaritifera*, Hend. Var. *parca*. ♀.





## EXPLANATION OF PLATES.

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### MOLLUSCA.

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#### PLATE VII.

**Figs. 1, 1a.**—*Pleurotoma (Ancistrosyrinx) travancorica*, E. A. Smith, Annals and Magazine of Natural History, (6) XVIII, 1896, p. 368.

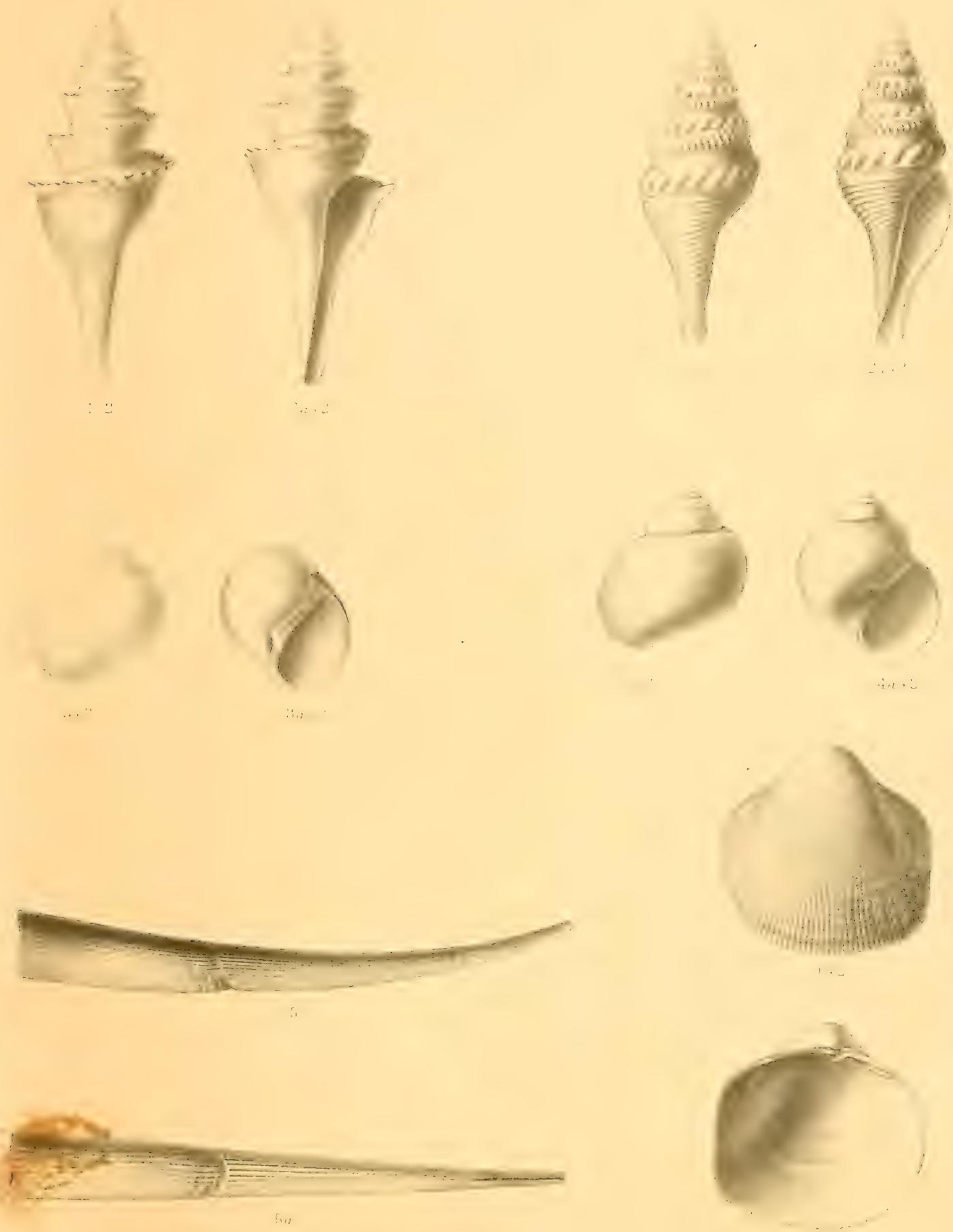
**Figs. 2, 2a.**—*Pleurotoma (Surcula) profundorum*, E. A. Smith, Annals and Magazine of Natural History, (6) XVIII, 1896, p. 369.

**Figs. 3, 3a.**—*Natica (Lunatia) abyssicola*, E. A. Smith, Annals and Magazine of Natural History, (6) XVIII, 1896, p. 370.

**Figs. 4, 4a.**—*Natica (Lunatia) levis*, E. A. Smith, Annals and Magazine of Natural History, (6) XVIII, 1896, p. 370.

**Figs. 5, 5a.**—*Dentalium magnificum*, E. A. Smith, Annals and Magazine of Natural History, (6) XVIII, 1896, p. 371.

**Figs. 6, 6a.**—*Cardium (Fragum) simillimum*, E. A. Smith, Annals and Magazine of Natural History, (6) XVIII, 1896, p. 372.



1, Pleurotoma (Ancistrosyrinx) travancorica, E. A. Smith. 2, Pleurotoma (Surcula) profundorum, E. A. Smith.

3, Natica (Lunatia) abyssicola, E. A. Smith. 4, Natica (Lunatia) livis, E. A. Smith.

5, Dentalium magnificum, E. A. Smith. 6, Cardium Fragum simillimum, E. A. Smith.





## EXPLANATION OF PLATES.

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### MOLLUSCA.

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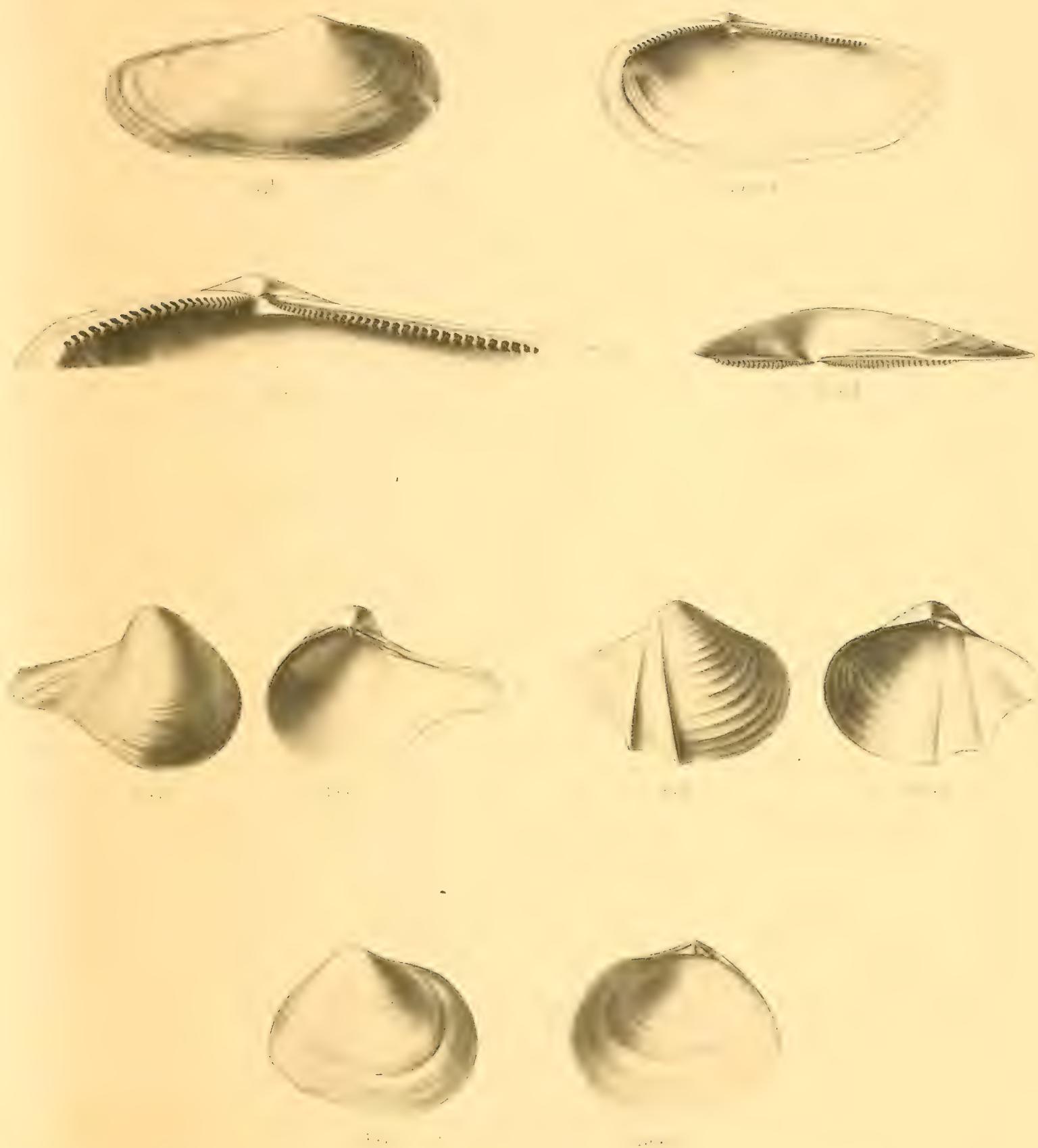
#### PLATE VIII.

**Figs. 1, 1a, 1b, 1c.**—*Yoldia anatina*, E. A. Smith, Annals and Magazine of Natural History, (6) XVIII, 1896, p. 373.

**Figs. 2, 2a.**—*Cuspidaria approximata*, E. A. Smith, Annals and Magazine of Natural History, (6) XVIII, 1896, p. 373.

**Figs. 3, 3a.**—*Myonera bicarinata*, E. A. Smith, Annals and Magazine of Natural History, (6) XVIII, 1896, p. 374.

**Figs. 4, 4a.**—*Scrobicularia ceylonica*, E. A. Smith, Annals and Magazine of Natural History, (6) XVIII, 1896, p. 375.



1. *Yoldia anatina*, E. A. Smith. 2. *Cuspidaria approximata*, E. A. Smith  
3. *Myonera bicarinata*, E. A. Smith. 4. *Scrobicularia ceylonica*, E. A. Smith

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